



**MS APPEAL BRIEF**  
**PATENT**  
3782-0124P

**IN THE U.S. PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF

BEFORE THE BOARD OF APPEALS

Petter ERICSON et al.

APPEAL NO.:

APPL. NO.: 09/813,112

GROUP: 2179

FILED: March 21, 2001

EXAMINER: W. HUTTON JR.

FOR: PROCESSING OF DOCUMENTS

**APPEAL BRIEF**

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ON BEHALF OF APPELLANTS:  
PETTER ERICSON ET AL.

**MS APPEAL BRIEF**

Board of Patent Appeals  
and Interferences  
P.O. Box 1450  
Alexandria, VA 22313-1450

September 5, 2006

Sir:

Appellants hereby submit the following Appeal Brief in support of the Notice of Appeal filed April 4, 2006. This Appeal is from the Decision of the Examiner dated January 4, 2006, finally rejecting claims 1-4, 6-13, 15-26 and 29-36, which are reproduced as an Appendix to this brief.

If necessary, the Commissioner is hereby authorized to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

**I. REAL PARTY IN INTEREST**

The real party in interest is the assignee of the entire interest in the above-captioned patent application, ANOTO AB, Emdalavagen 18, S-223 69 Lund SWEDEN.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's Decision in this Appeal.

**III. STATUS OF THE CLAIMS**

Claims 1-13, 15-26 and 29-36 are pending in the above-captioned application. Claims 1-4, 6-13, 15-26 and 29-36 are rejected and the subject of the present Appeal. Claim 5 have been indicated as containing allowable subject matter. Claims 1-2, 16-17, and 22 are independent.

**IV. STATUS OF AMENDMENTS**

No amendments have been presented after the final rejection of January 4, 2006.

**V. SUMMARY OF CLAIMED SUBJECT MATTER**

The summary of the claimed invention herein, including the exemplary support provided in the form of citations to the specification of the present application, is being made to comply with the Patent Office rules in submitting briefs and is not to be considered as limiting the claimed invention.

The claimed invention is a method of editing a document, the method comprising transferring document information to a printing device adapted to print the document information on a surface having a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, whereby each symbol contributes to the coding of more than one of the plurality of positions (paras. [023]-[028] and [068]); receiving editing information from a reading device adapted to read position information from the position coded surface (para. [069]); interpreting the editing of information (para. [071]); and changing the document information depending on an interpretation of the editing information thereby resulting in an updated document (para. [081]).

The claimed invention further includes a method for editing a document, the method comprising initially registering said document in a pattern administration unit (602); the pattern administration unit assigning a unique subset of position-coding pattern to each page of said registered document (para. [078]); transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device adapted to print the position-coding pattern on a surface (paras. [0023]-[0028] and [068]); transferring document information to the printing device adapted to print the document information on the surface (para. [075]); receiving editing information from a reading device adapted to read position information from the position-coded surface (para. [080]); interpreting the editing information (para. [071]); and changing the document information based on an interpretation of the editing information, thereby resulting in an updated document (para. [081]).

The method may further include receiving device identity information from the reading device, the identity information associating the editing information with a user of the reading device

(para. [072]). The editing information may be associated with a plurality of users wherein each user generates at least one editing command with a reading device (para. [072]).

The method may further include wherein the editing commands generated by the plurality of users are in an ordered sequence identified by at least a timestamp associated with each editing command (para. [075]). The editing information may include position information related to a position of the reading device on the surface wherein the interpretation of the editing information includes interpretation of the position information (para. [073]). The position information may be in the form of sequences of coordinates forming manually generated curves corresponding in form to drawn curves on the printed document (para. [020]). The method may further include displaying the document information of the updated document to a user (para. [081]). The step of changing the document information may include adding editing information in the form of handwritten annotations to the document (para. [086]). The method may further include associating, based on position information included in the editing information, each of the handwritten annotations with a respective portion of the document information (para. [088]).

The method may further include changing the document information including reformatting one or more parts of the document information (para. [081]). Reformatting may be chosen from a group of adding text or graphics to the document information; removing text or graphics from the document information; or repositioning text or graphics included in the document information (para. [073]). Adding text may include converting part of the editing information to machine-readable text (para. [073]).

The claimed invention is further directed to a computer readable medium having embodied thereon a computer program which can be read by a computer and which comprises instructions for causing a computer to execute a method according to claim 1 or 2 (para. [089]).

The claimed invention further includes a system comprising storage means for storing a document (603); means for transferring information (Fig. 6) from the document to a printing device capable of printing the information on a surface provided with a position-coding pattern, the position coding-pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions; means for receiving editing information (Fig. 6, ref. no. 602) from a reading device (601) adapted to read position information from a position-coded surface; means for interpreting the editing information (603); and means for changing the document information (603) based on an interpretation of the editing information, thereby resulting in an updated document.

The claimed invention further includes a system for document editing, the system comprising storage means for storing a document (603); registration means which is arranged to initially register the document in a pattern administration unit (602) comprising a database of a position-coding pattern, the pattern administration unit being arranged to assign a unique subset of the position-coding pattern to each page of the registered document (para. [078]); means for transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device capable of printing the position-coding pattern on a surface (para. [075]); means for transferring information contained in the document to the printing device, the printing device being adapted to print the information on the surface (para. [075]); means for receiving editing information from a reading device adapted to read position information from a position-coded surface (para. [080]); means for interpreting the editing information (para. [081]); and means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document (para. [081]).

The claimed invention may further include means for receiving device identity information from the reading device (para. [072]), so as to associate the editing information with a user of the reading device.

The claimed invention may further include wherein said storage means and said registration means is included in a computer device (para. [078]).

The claimed invention may further include wherein said means for receiving editing information is included in said pattern administration unit (602) (paras. [080] and [082]).

The claimed invention may further include wherein said means for receiving editing information is included in a local processing unit (603) (para. [083]).

The claimed invention further provides for a method of editing a document containing information including storing the document information in memory (para. [068]); printing the document information on a surface, wherein the surface contains a readable code contained thereon in addition to the printed document information (para. [068]), wherein the readable code comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid (para. [057]); enabling an electronic pen to physically mark edit instructions on the surface and to electronically capture the edit instructions by reading the readable code proximate to the marked edit instructions (para. [069]); receiving through a processor associated with the memory the edit instructions captured by the electronic pen (para. [080]); and altering the document information to conform to the edit instructions (para. [081]).

The claimed invention may further provide for the readable code being a position coding pattern wherein the position coding pattern comprises symbols associated with grid points of a grid and codes a plurality of positions on the surface, each position being coded by a plurality of symbols,

wherein each symbol contributes to the coding of more than one of the plurality of positions (paras. [023]-[028] and [068]).

The claimed invention may further provide for the pattern administration unit, in the registering, receiving the document data indicative of the document and a number of document pages (para. [078]). The claimed invention may further include wherein the document data includes the document (para. [078]).

The claimed invention may provide wherein the registration means is arranged to transfer document data indicative of the document and of a number of document pages to the patterns administration unit (para. [078]). The claimed invention may further include wherein the document data includes the document (para. [078]).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The Final Office Action provides five (5) grounds of rejection for review on Appeal:

- 1) Claims 1, 6-12, 15, 16, 22, 23 and 32-33 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Lazzouni et al.* (USP 5,652,412) (hereinafter “*Lazzouni*”);
- 2) Claims 3, 4 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable in view of *Lazzouni et al.* in view of *Henderson* (USP 5,897,648) (hereinafter “*Henderson*”);
- 3) Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable in view of *Lazzouni et al.* in view of *Skinner* (USP 6,661,920) (hereinafter “*Skinner*”);

- 4) Claims 2, 17, 19-21, 24-26, 29-31, 34 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lazzouni et al.* in view of *Dymetman et al.* (USP 6,752,317) (hereinafter “*Dymetman*”); and
- 5) Claim 36 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Lazzouni et al.* in view of *Dymetman et al.* and further in view of *Henderson*.

## VII. ARGUMENTS

### A. The Rejection Fails to Establish *Prima facie* Anticipation of Claims 1, 6-12, 15, 16, 22 and 23 Based on the Teaching of *Lazzouni*

#### 1. Argument Summary

The Examiner’s rejection of claims 1, 6-12, 15, 16, 22 and 23 under 35 U.S.C. § 102(b) as being anticipated by *Lazzouni* fails to establish *prima facie* anticipation. Generally, the deficiencies of the rejection are that the rejection attributes certain claimed features to the *Lazzouni* reference that a detailed reading of the reference reveals are not taught therein.

#### 2. The Legal Requirements of *Prima Facie* Anticipation

In order to properly anticipate Appellant’s claimed invention under 35 U.S.C. §102(b), each and every element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” See M.P.E.P. §2131 (8th Ed., Aug. 2001), quoting Richardson v. Suzuki Motor Co., 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Finally, “[t]he elements must be arranged as required by the claim.” M.P.E.P. §2131 (8th ed. 2001), p. 2100-69.

3. The Examiner Fails to Establish *Prima Facie* Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claim 1

The invention of claim 1 is directed to a method of editing a document. The method includes transferring document information to a printing device adapted to print the document information on a surface having a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions; receiving editing information from a reading device adapted to read position information from the position-coded surface; interpreting the editing information; and changing the document information depending on an interpretation of the editing information, thereby resulting in an updated document.

In support of the Examiner's rejection of claim 1, the Examiner asserts in the final Official Action mailed January 4, 2006, on page 2, as follows:

*Lazzouni* discloses a method of editing a document (see Column 1, Lines 6-8; see Column 2, Lines 28-31 - *Lazzouni* discloses this limitation in that the information recording system allows a user to edit a document by recording written information on encoded paper and recording the written information in computer memory), the method comprising:

- transferring document information to a printing device adapted to print the document information on a surface having a position-coding pattern (see Column 4, Line 8-14; see Column 4, lines 42-50; see Column 14, Line 16-33 – *Lazzouni* discloses this limitation in that the information recording system includes paper encoded with pixels. The encoded paper is used by sales/mobile personnel to record “business transactions” in “sales books” and can be “made as a form” (emphasis added), as indicated in Column 4, Lines 42-50. Also, other forms can be used with the system, as indicated in Column 14, Lines 16-33.), the position-coding pattern comprising symbols associated with grid points of a grid (see Figures 12 and 13; see Column 6, Lines 40-44 – *Lazzouni* discloses this limitation in that the information recording system comprises the pixels, which contain encoded position information in the form of coordinates of an X-Y grid.) and coding a plurality of positions of the surface (see Figure 12; see Column 6, lines 61-63 – *Lazzouni* discloses this limitation in that the information recording system comprises the pixels, which define a plurality of coordinate positions.), each position being coded by a plurality of the symbol (See Figures 12 and 13; see Column 11, Line 5 through Column 14, Line 15 – *Lazzouni* discloses this limitation in that the information recording system

- uses a plurality of pixels to determine the coordinates of the pen as it is moved by the user. That is, as the user writes on the pixel paper, the pen moves over and between a plurality of pixels. These pixels are used to code the positions of the pen as it is moved by the user.), wherein each symbol contributes to the coding of more than one of the plurality of positions (see Figures 12 and 13; see Column 11, Line 5 through Column 14, Line 15 – *Lazzouni* discloses this limitation in that the information recording system uses a plurality of pixels to determine the coordinates of the positions of the pen as it is moved over the pixel paper by the user. Thus each pixel is used to code multiple positions of the pen.); ...
- changing the document information depending on an interpretation of the editing information, thereby results in an updated document (see Column 9, Lines 25-27; See Column 14, Lines 23-33 – *Lazzouni* discloses this limitation in that the information recording system provides both a hard copy and a digital copy of the form and the user's handwriting, as indicated in Column 14, Lines 23-33. The digital copy may then be printed by a host computer, as indicated in Column 9, Line 25-27.).

Appellants respectfully disagree that *Lazzouni* discloses transferring document information to a printing device adapted to print the document information on a surface having a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions; receiving editing information from a reading device adapted to read position information from the position-coded surface; interpreting the editing information; and changing the document information depending on an interpretation of the editing information, thereby resulting in an updated document, as required by claim 1.

- a. *Lazzouni* fails to teach or suggest “transferring document information to a printing device adapted to print the document information on a surface having a position-coding pattern,” as required by claim 1.

In support of the Examiner's rejection of claim 1, as noted above, the Examiner asserts that *Lazzouni* discloses:

transferring document information to a printing device adapted to print the document information on a surface having a position-coding pattern (see Column 4, Line 8-14;

see Column 4, lines 42-50; see Column 14, Line 16-33 – *Lazzouni* discloses this limitation in that the information recording system includes paper encoded with pixels. The encoded paper is used by sales/mobile personnel to record “business transactions” in “sales books” and can be “made as a **form**” (emphasis added), as indicated in Column 4, Lines 42-50.

At col. 4, lines 8-14, *Lazzouni* discloses:

Information recording apparatus in accordance with the present invention includes an encoded paper, an electrooptical writing pen and a recording unit. The encoded paper is passive and is encoded with narrow lines which define pixels. The lines are preferably printed with infrared inks formed from organic compounds and, when printed on ordinary paper, are invisible to the human eye.

At col. 4, lines 42-50, *Lazzouni* discloses:

The information recording apparatus of the present invention is designed for field or office use and may be used by sales or mobile personnel, mobile managers, students taking lecture notes, and the like. In a preferred embodiment, the encoded paper can be made in multisheet pads and can be made as a form or as blank paper, with or without visible reference lines. The information stored in the recording unit may be accessed at any time for display and printout.

At col. 14, lines 16-33, *Lazzouni* discloses:

In one example of an application of the present invention, a student uses the information recording apparatus for taking class notes. Lecture notes are written with the pen on the encoded paper. The written and coordinate data are simultaneously recorded on the paper and in memory. At a later time, the data can be displayed on a host computer.

Another application of the present invention is in a sales book. Entries made by a salesman for each business transaction are stored in the memory and can be accessed by a host computer at the end of the day or the end of the week for further processing. The sales book can be used in the field or in a retail store. The information recording apparatus of the present invention provides a written copy of the sales transaction on paper and a record in memory. Other forms that can be configured in accordance with the present invention include bank checks, legal forms, credit application, bank forms and other forms requiring a record of a transaction.

As noted above, *Lazzouni* merely discloses that the encoded paper can be made as a form.

This disclosure is insufficient to anticipate the claim element. There is no discussion in *Lazzouni* that is directed to transferring document information to a printing device, and, further, there is no

disclosure directed to a printing device being adapted to print the document information on a surface having a position coding pattern. *Lazzouni* merely discloses that the encoded paper may be made as a form. There is no teaching or suggestion as to how the form is generated, what the document information is, how the document information is created, if or where the document information is stored, and where the document information is transferred to.

As such, Appellants respectfully submit that, as *Lazzouni* fails to teach or suggest this claim element.

- b. *Lazzouni* fails to teach or suggest “changing the document information depending on an interpretation of the editing information, thereby resulting in an updated document,” as required by claim 1.

As noted above, *Lazzouni* fails to teach or suggest what the document information is, how it is created, how it is stored, or how it is transferred. *Lazzouni* merely discloses that the encoded paper may be made as a form. *Lazzouni* further discloses in col. 14, as noted above, that the written forms may be used to retain a record of the transaction. However, there is no teaching or suggestion that the purported “document information,” or the information needed to create the form, is changed thereby resulting in an updated document. *Lazzouni* does not provide any disclosure that is directed to storing the information used in creating the encoded form. As such, there can be no teaching or suggestion that is directed to changing the document information, thereby resulting in an updated document, as required by claim 1.

As such, Appellants respectfully submit that, as *Lazzouni* fails to teach or suggest this claim element.

- c. Lazzouni fails to teach or suggest “the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on a surface,” as required by claim 1.

As noted above, the Examiner asserts that *Lazzouni* discloses:

the position-coding pattern comprising symbols associated with grid points of a grid (see Figures 12 and 13; see Column 6, Lines 40-44 – *Lazzouni* discloses this limitation in that the information recording system comprises the pixels, which contain encoded position information in the form of coordinates of an X-Y grid.)

At col. 6, lines 35-65, *Lazzouni* discloses as follows:

As noted above, the encoded paper 14 has a prerecorded pattern of pixels which contain encoded position information. The encoded position information permits the absolute position of the pen tip 18 to be determined simultaneously with writing. A continuous record of the path followed by the pen tip 18 is stored in recording unit 20. The path is specified in terms of the coordinates of the pixels on the encoded paper 14. Preferably, the pattern of pixels is a uniform X-Y grid pattern, including rows and columns of pixels. Preferably, the dimensions of the pixels are on the order of 0.8 to 1.1 millimeters in the X and Y directions.

A single pixel 100 is illustrated generally in FIG. 4. The pixel includes a plurality of horizontal data lines 102 between horizontal delimiter lines 104 and 106 and a plurality of vertical data lines 108 between vertical delimiter lines 110 and 112. The horizontal data lines 102 and the vertical data lines 108 are each spaced apart by spaces 114. The boundaries of the pixel 100 are established by the horizontal delimiter lines 104 and 106 and by the vertical delimiter lines 110 and 112. In a preferred embodiment, the horizontal data lines 102 and the vertical data lines 108 each have widths on the order of 50-100 micrometers and are separated by spaces 114 equal to the widths of the lines. The configuration shown in FIG. 4 is representative of one coding algorithm. As discussed below, spaces between lines are not used in some coding algorithms.

The pattern of pixels extends over the entire surface of the paper. Each pixel defines a unique coordinate position on the surface of the paper. The uniqueness of each pixel 100 is established by an algorithm which orders the vertical and horizontal data lines.

As noted above, *Lazzouni* discloses that the path of the pen movement is specified in terms of coordinates of the pixels on the encoded paper. As discussed in col. 11, line 51 through col. 14, line

11, *Lazzouni* discloses determining the pen path based on X and Y vectors that are determined based on the position of the pen. *Lazzouni* discloses determining the position of the pen at an instance N, where the Y-axis property and X-axis property are noted. As the pen moves over pixels, a series of vectors are produced which assist in determining the path of the pen. Although *Lazzouni* discloses that the pattern of pixels may be a uniform X-Y grid, there is no teaching or suggestion that is directed to symbols associated with grid points of a grid. *Lazzouni* merely discloses utilizing vectors as the pen moves to determine pen paths. There is no teaching or suggestion that is directed to a pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, as required by claim 1.

As such, Appellants respectfully submit that, as *Lazzouni* fails to teach or suggest this claim element.

- d. *Lazzouni* fails to teach or suggest “each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions” as recited in Claim 1

As noted above, *Lazzouni et al.* teaches each of the pixels includes a plurality of vertical lines for encoding an X coordinate of the pixel and a plurality of horizontal lines for encoding a Y coordinate of the pixel. Each pixel further includes vertical and horizontal delimiter lines for defining the boundary of the pixel (col. 3, lines 15-20). Each pixel defines a unique coordinate position on the surface where the uniqueness of each pixel is established by an algorithm which orders the vertical and horizontal data lines.

As noted above, in support of the Examiner’s rejection of the claim, the Examiner asserts:

each position being coded by a plurality of the symbol (See Figures 12 and 13; see Column 11, Line 5 through Column 14, Line 15 – *Lazzouni* discloses this limitation in that the information recording system uses a plurality of pixels to determine the coordinates of the pen as it is moved by the user. That is, as the user writes on the pixel paper, the pen moves over and between a plurality of pixels. These pixels are used to code the positions of the pen

as it is moved by the user.), wherein each symbol contributes to the coding of more than one of the plurality of positions (see Figures 12 and 13; see Column 11, Line 5 through Column 14, Line 15 – *Lazzouni* discloses this limitation in that the information recording system uses a plurality of pixels to determine the coordinates of the positions of the pen as it is moved over the pixel paper by the user. Thus each pixel is used to code multiple positions of the pen.)...

As can be clearly seen by this disclosure, *Lazzouni* clearly discloses the lines within the delimiters coding one pixel. The Examiner's reliance on the disclosure used to determine pen path is wholly improper in asserting anticipation of this claim element. There is no disclosure that is directed to each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions. As such, Appellants respectfully submit that, as *Lazzouni* fails to teach or suggest this claim element.

For all of the reasons set forth above, Appellants respectfully submit that, as *Lazzouni* fails to teach or suggest all of the claim elements, *Lazzouni* fails to anticipate claim 1.

4. The Examiner Fails to Establish *Prima Facie* Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claim 8

Claim 8 depends directly on claim 1. Appellants submit that claim 8 is allowable for the reasons set forth above with regard to claim 1 at least based upon its dependency on claim 1. Appellants further submit that dependent claim 8 is separately patentable and offer the following additional arguments for the invention of claim 8.

The invention of claim 8 is directed to a method including displaying the document information of the updated document to a user.

In support of the rejection of claim 8, the Examiner relies on col. 9, lines 25-27 and col. 14, lines 22-33.

*Lazzouni* discloses at col. 9, lines 25-27 as follows:

When data transfer is desired, the microprocessor 132 reads coordinate data from memory 134 and transmits it to the host computer 140. The coordinate data can be displayed, printed, stored or processed in any other desired manner by host computer 140.

At this citation, *Lazzouni* merely discloses that the coordinate data may be displayed. However, the coordinate data cannot reasonably be interpreted as the updated document. The coordinate data, at most, reflects the data read by the recording unit. Claim 8 requires that the document information is changed depending on the interpretation of the editing information, thereby resulting in an updated document, and the updated document is displayed. *Lazzouni* fails to teach or suggest this claim element.

As *Lazzouni* fails to teach or suggest all of the claim elements, Appellants respectfully submit that *Lazzouni* fails to anticipate claim 8.

5. The Examiner Fails to Establish *Prima Facie* Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claim 10

Claim 10 depends indirectly on claim 1. Appellants submit that claim 10 is allowable for the reasons set forth above with regard to claim 1 at least based upon its dependency on claim 1. Appellants further submit that dependent claim 10 is separately patentable and offer the following additional arguments for the invention of claim 10.

The invention of claim 10 is directed to a method including associating, based on position information included in the editing information, each of the handwritten annotations with a respective portion of the document information.

In support of the rejection of claim 10, the Examiner relies on Figs. 1-3, col. 2, line 60 through col. 3, line 8, col. 4, lines 15-42, col. 5, line 20 through col. 6, line 45, col. 9, lines 25-27 and col. 14, lines 22-33.

The Examiner provides numerous citations that disclose the recording unit reading pixels on the encoded surface and the path of the pen being capable of being displayed. However, none of these citations are sufficient to teach or suggest associating, based on position information included in the editing information, each of the handwritten annotations with a respective portion of the document information, as required by claim 10.

As *Lazzouni* fails to teach or suggest all of the claim elements, Appellants respectfully submit that *Lazzouni* fails to anticipate claim 10.

6.     The Examiner Fails to Establish *Prima Facie* Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claims 6-7, 9, 11-12, and 15

Claims 6-7, 9, 11-12, and 15 depend directly or indirectly on claim 1. Appellants submit that claims 6-7, 9, 11-12, and 15 are allowable for the reasons set forth above with regard to claim 1 at least based upon their dependency on claim 1. Appellants further submit that dependent claims 6-7, 9, 11-12, and 15 are separately patentable and offer the following additional arguments for the invention of claims 6-7, 9, 11-12, and 15.

The rejection of these claims asserts that *Lazzouni* teaches the incremental features recited therein. Appellants submit, however, that the rejection's reliance on *Lazzouni* as allegedly teaching these incremental features fails to make up for the deficiencies of the rejection applied to claim 1. Thus the Examiner has failed to establish *prima facie* anticipation of dependent claims 6-7, 9, 11-12, and 15 by failing to provide a reference that teaches or suggests all of the claim elements.

7.     The Examiner Fails to Establish *Prima Facie* Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claim 16

The invention of claim 16 is directed to a system for document editing, the system comprising storage means for storing a document; means for transferring information from the

document to a printing device capable of printing the information on a surface provided with a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions; means for receiving editing information from a reading device adapted to read position information from a position-coded surface; means for interpreting the editing information; and means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

In support of the Examiner's rejection of claim 16, the Examiner asserts in the final Official Action mailed January 4, 2006, on page 9, as follows:

*Lazzouni* discloses a system for document editing... comprising:

- Storage means for storing a document (see column 1, line 11 through Column 2, line 17; see Column 9, Lines 14-38 – *Lazzouni* discloses this limitation in that it discloses many prior art devices that are used to edit documents stored in a “storage means.” Additionally, the information recording system comprises a host computer that can store all documents manipulated within the system. Finally, the recording apparatus comprises a storage means for storing the user’s handwritten edits in the form.);
- Means for transferring information from the document to a printing device capable of printing the information on a surface provided with a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions of the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions (as indicated in the above rejection for claim 1, *Lazzouni* discloses this limitation);...

Appellants respectfully disagree that *Lazzouni* discloses a system for document editing, the system comprising storage means for storing a document; means for transferring information from the document to a printing device capable of printing the information on a surface provided with a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality

of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions; means for receiving editing information from a reading device adapted to read position information from a position-coded surface; means for interpreting the editing information; and means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document, as required by claim 16.

At the outset, with regard to all of the means recited in the claim, except for the storage means, the Examiner relies on his rejection of claim 1 to support his rejection of claim 16. However, claim 1 is a method claim that does not include the “means” as recited in claim 16. As such, the Examiner’s rejection of claim 16 is deficient at least because the Examiner has failed to provide any support for his rejection of the “means” as recited in the claims.

- a. Lazzouni fails to teach or suggest “means for storing a document,” as required by claim 16

The Examiner relies on col.1, line 11 through col. 2, line 17; see col. 9, Lines 14-38 to support his assertion that *Lazzouni* discloses means for storing a document. At cols. 1-2, *Lazzouni* discloses various prior art devices. However, it is wholly improper for the Examiner to rely on prior art devices in combination with the invention of *Lazzouni* to assert a rejection of the claim under 35 U.S.C. §102. If the Examiner is seeking to make such a combination of separate and distinct systems, the rejection should be asserted under 35 U.S.C. §103(a), together with the necessary *prima facie* elements to support such a combination to support a conclusion of obviousness..

Further, at col. 9, lines 14-38, *Lazzouni* discloses memory for added storage capability that may be required in portable applications of the information processing apparatus. However, there is no disclosure that is directed to means for storing a document.

- b. *Lazzouni* fails to teach or suggest “means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document,” as required by claim 16

The Examiner relies on his rejection of claim 1 to support his rejection of claim 16. However, there is no disclosure in *Lazzouni* that is directed means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document. As noted above with regard to claim 1, *Lazzouni* fails to teach or suggest changing the document information. Thus, *Lazzouni* fails to teach or suggest any means for changing the document information.

- c. *Lazzouni* fails to teach or suggest ”means for transferring information from the document to a printing device capable of printing the information on a surface provided with a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions,” as required by claim 16

As noted above with regard to claim 1, *Lazzouni* fails to teach or suggest “means for transferring information from the document to a printing device capable of printing the information on a surface provided with a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions.” As such, *Lazzouni* fails to teach or suggest any means for performing these functions.

As *Lazzouni* fails to teach or suggest these claim elements, Appellants respectfully submit that the Examiner has failed to establish *prima facie* anticipation.

8. The Examiner Fails to Establish *Prima Facie* Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claim 22

The invention of claim 22 is directed to a method of editing a document containing information, the method comprising storing the document information in memory; printing the document information on a surface, wherein the surface contains a readable code contained thereon in addition to the printed document information, wherein the readable code comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid; enabling an electronic pen to physically mark edit instructions on the surface and to electronically capture the edit instructions by reading the readable code proximate the marked edit instructions; receiving through a processor associated with the memory the edit instructions captured by the electronic pen; and altering the document information in memory to conform to the edit instruction, as required by claim 22.

In support of the Examiner's rejection of claim 16, the Examiner asserts in the final Official Action mailed January 4, 2006, on pages 10-11, as follows:

*Lazzouni* discloses a method of editing... comprising:

- Storing the document information in memory (see column 1, line 11 through Column 2, line 17; see Column 9, Lines 14-38 – *Lazzouni* discloses this limitation in that it discloses many prior art devices that are used to edit documents stored in memory. Additionally, the information recording system comprises a host computer that can store all documents manipulated within the system. Finally, the recording apparatus comprises a storage means for storing the user's handwritten edits to the form.);
- printing the document information on a surface, wherein the surface contains a readable code contained thereon in addition to the printed document information (see Column 4, Lines 8-14; see Column 4, Lines 43-50; see Column 14, Lines 16-33 – *Lazzouni* discloses this limitation in that the information recording system includes paper encoded with pixels. The encoded paper is used by sales/mobile personnel to record "business transactions" in "sales books" and can be "made as a form" (emphasis added), as indicated in Column 4, lines 43-50. Also other forms can be used with the system, as

- indicated in Column 14, Lines 16-33.), wherein the readable code comprises a grid and a plurality of symbols (As indicated in the above rejection for Claim 1, *Lazzouni* discloses this limitation.), the value of each symbol being determined by a displacement of a marking in relation to the grid (**EXAMINER'S INTERPRETATION** – The examiner interprets this limitation as simply the x- and y- coordinates for the “symbols” on the paper with respect to the “grid.” ...
- altering the document information in memory to conform to the edit instructions (See Column 9, Line 25-27; see Column 14, Lines 22-33 – *Lazzouni* discloses this limitation in that the information recording system provides both a hardcopy and a digital copy of the form and the user’s handwriting, as indicated in Column 14, Lines 22-33. The digital copy may then be printed by a host computer, as indicated in Column 9, Line 25-27.).

Appellants respectfully disagree that *Lazzouni* discloses storing the document information in memory; printing the document information on a surface, wherein the surface contains a readable code contained thereon in addition to the printed document information, wherein the readable code comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid; enabling an electronic pen to physically mark edit instructions on the surface and to electronically capture the edit instructions by reading the readable code proximate the marked edit instructions; receiving through a processor associated with the memory the edit instructions captured by the electronic pen; and altering the document information in memory to conform to the edit instruction, as required by claim 22.

- a. *Lazzouni* fails to teach or suggest “storing the document information in memory,” as required by claim 22

As noted above with regard to claim 16, there is no teaching or suggestion in *Lazzouni* that is directed to storing the document information in memory. *Lazzouni* merely discloses that a form may be printed on the encoded paper. However, these teachings are insufficient to teach or suggest storing the document information in memory. Further, the Examiner’s reliance on functionality of prior art systems to support his rejection of the claims is wholly improper where the Examiner rejected the claims under 35 U.S.C. §102.

- b. *Lazzouni fails to teach or suggest “wherein the readable code comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid,” as required by claim 22*

In support of the Examiner’s rejection of this claim element, the Examiner interprets this claim element “as simply the x- and y- coordinates for the ‘symbols’ on the paper with respect to the ‘grid’”. However, as noted above with regard to claim 1, the Examiner is asserting that he is relying on the pixel of *Lazzouni* to teach the “symbol” as claimed. *Lazzouni* clearly discloses that each of the pixels includes a plurality of vertical lines for encoding an X coordinate of the pixel and a plurality of horizontal lines for encoding a Y coordinate of the pixel. Each pixel further includes vertical and horizontal delimiter lines for defining the boundary of the pixel (col. 3, lines 15-20). Each pixel defines a unique coordinate position on the surface where the uniqueness of each pixel is established by an algorithm which orders the vertical and horizontal data lines. There is no teaching or suggestion in *Lazzouni* that is directed to the value of each symbol being determined by a displacement of a marking in relation to the grid.

By taking the Examiner’s interpretation as set forth in the outstanding rejection, the Examiner is not considering, and, thus, not affording patentable weight to, all of the elements as recited in the claim. Claim 22 clearly recites “wherein the readable code comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid.” The Examiner appears to ignore this claim element, which is wholly improper. *Lazzouni* fails to teach or suggest this claim element.

- c. *Lazzouni fails to teach or suggest “altering the document information in memory to conform to the edit instructions,” as required by claim 22*

In support of his rejection of the claim, the Examiner asserts that *Lazzouni* discloses “providing both a hard copy and a digital copy of the form and the user’s handwriting.” However, as noted above with regard to claim 1, the user’s handwriting cannot constitute altered document information. At most, the user’s handwriting may teach or suggest, *arguendo*, edit information. There is no teaching or suggestion in *Lazzouni* that discloses altering the original form information that is printed on a surface, to conform to the edit instructions, as required by the claim.

For all of the reasons set forth above, Appellants respectfully submit that *Lazzouni* fails to teach or suggest all of the elements of claim 22 and, as such, the Examiner has failed to establish *prima facie* anticipation.

9. *The Examiner Fails to Establish Prima Facie Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claim 23*

Claim 23 depends directly or indirectly on claim 22. Appellants submit that claim 23 is allowable for the reasons set forth above with regard to claim 22 at least based upon its dependency on claim 22. Appellants further submit that dependent claim 23 is separately patentable and offer the following additional arguments for the invention of claim 23.

The rejection of claim 23 asserts that *Lazzouni* teaches the incremental features recited therein. Appellants submit, however, that the rejection’s reliance on *Lazzouni* as allegedly teaching these incremental features fails to make up for the deficiencies of the rejection applied to claim 22. Thus the Examiner has failed to establish *prima facie* anticipation of dependent claim 23 by failing to provide a reference that teaches or suggests all of the claim elements.

10. The Examiner Fails to Establish *Prima Facie* Anticipation by Failing to Provide a Reference that Teaches or Suggests All of the Elements of Claims 32-33

Claims 32-33 depend directly on claims 1 and 16, respectively. Appellants submit that claims 32-33 are allowable for the reasons set forth above with regard to claims 1 and 16, respectively, at least based upon their dependency on claims 1 and 16, respectively. Appellants further submit that dependent claims 32-33 are separately patentable and offer the following additional arguments for the invention of claims 32-33.

The Examiner relies on his rejection of claim 22 to support his rejection of claims 32-33. However, as noted above with regard to claim 22, *Lazzouni* fails to teach or suggest this claim element. As such, Appellants respectfully submit that the Examiner has failed to establish *prima facie* anticipation by failing to provide a reference that teaches or suggests all of the claim elements.

B. The Examiner Fails to Establish *Prima Facie* Obviousness in rejecting claims 3-4 and 18 based on the teachings of *Lazzouni* and *Henderson*.

1. Argument Summary

The reasoning provided in support of the rejection of claims 3-4 and 18 under 35 U.S.C. § 103(a) as being unpatentable over *Lazzouni* in view of *Henderson* fails to establish *prima facie* obviousness. Generally, the deficiencies of the rejection are that the rejection attributes certain claim features to the references that a detailed reading of the references reveals are not taught therein; as the nature and the purpose of the device of *Lazzouni* is recognized, it is evident that there is no suggestion or motivation in either of the references cited in support of the rejection or in knowledge generally available to those skilled in the art to modify *Lazzouni* in the manner asserted by the rejection; and by asserting that certain modifications of the device of *Lazzouni* would have been obvious without proper suggestion or motivation in the applied references or elsewhere to make the

asserted modifications, the rejection appears to rely on impermissible hindsight. Such deficiencies exist for the rejection of each of claims 3-4 and 18.

## 2. Legal Requirements of *Prima facie* Obviousness

To establish *prima facie* obviousness, all claim limitations must be taught or suggested by the prior art and the asserted modification or combination of the prior art must be supported by some teaching, suggestion, or motivation in the applied references or in knowledge generally available to one skilled in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The prior art must suggest the desirability of the modification in order to establish a *prima facie* case of obviousness. *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1995). It can also be said that the prior art must collectively suggest or point to the claimed invention to support a finding of obviousness. *In re Hedges*, 783 F.2d 1038, 1041, 228 USPQ 685, 687 (Fed. Cir. 1986); *In re Ehrreich*, 590 F.2d 902, 908-909, 200 USPQ 504, 510 (C.C.P.A. 1979).

The teaching or suggestion to make the asserted combination or modification of the primary reference must be found in the prior art and cannot be gleaned from applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In other words, the use of hindsight to reconstruct the claimed invention is impermissible. *Uniroyal Inc. v. Rudlan-Wiley Corp.*, 5 USPQ 1434 (Fed. Cir. 1983).

Finally, when considering the differences between the primary reference and the claimed invention, the question for assessing obviousness is not whether the differences themselves would be been obvious, but instead whether the claimed invention as a whole would have been obvious. *Stratoflex Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983).

3.     The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claim 3

Claim 3 depends directly on claim 1. Appellants submit that claim 3 is allowable for the reasons set forth above with regard to claim 1 at least based upon its dependency on claim 1. Appellants further submit that dependent claim 3 is separately patentable and offer the following additional arguments for the invention of claim 3.

Dependent claim 3 is directed to a method of editing a document. The method includes receiving device identity information from the reading device, the identity information associating the editing information with a user of the reading device.

In support of the Examiner's rejection of claim 3, the Examiner admits, on page 14 of the Final Official Action dated January 4, 2006, that *Lazzouni* fails to teach or suggest these claim elements. The Examiner relies on the teachings of *Henderson* to cure the deficiencies of the teachings of *Lazzouni* citing to Figs. 2-3, col. 5, lines 6-34, col. 7, lines 11-26. The Examiner asserts that *Henderson* teaches "that the electronic document editing system includes multiple digitizer pens having different pen colors. The different pen colors are used to indicate edits made by different persons."

The disclosure of *Henderson* is directed to an apparatus and method for editing electronic documents wherein the hard copy of a document is scanned into digital form to provide an electronic version of the document. The original document is then placed on an x-y digitizer pad with the position of the original document being correlated with the electronic version of the document in order to provide corresponding scaling, rotation, and offset of the documents (Abstract). Editing is performed with a digitizer pen that, in conjunction with the digitizer surface, converts the handwritten edit into digital form (col. 4, lines 3-5).

*Henderson* discloses if multiple editing inputs such as different pen colors are used, it is preferred to store each of the various editing inputs separately in order to retrieve individual edits. For example, where different pen colors are used to indicate edits made by different persons, each of the different edits may be stored separately in order to retrieve the individual edits (col. 7, lines 18-24).

*Henderson* further discloses in col. 12, lines 11-17, that for applications such as teleconferencing, operators at various remote locations can make edits that are identifiable with a given location or person. For example, editors at one location may use one color while editors at another location may use a different color. In this manner, the editing inputs from various persons and/or locations can be determined.

However, there is no teaching or suggestion in *Henderson* that is directed to receiving device identity information from the reading device, the identity information associating the editing information with a user of the reading device. *Henderson* merely teaches that participants of the teleconference may see different pen colors; however, this teaching is insufficient to teach or suggest the device identity information as claimed. As neither of the references, either alone or in combination, teach or suggest this claim element, Appellants maintain that the Examiner has failed to establish *prima facie* obviousness. Appellants maintain that claim 3 is not obvious over the references as cited.

The Examiner further asserts that one skilled in the art would be motivated to combine the teachings of *Henderson* with the teachings of *Lazzouni* “for the purpose of separate identifying the edits made by various individuals, as taught in *Henderson*. ” However, *Henderson* fails to teach or suggest identifying an individual that made a particular edit. As such, the references do not suggest such a motivation. By asserting it would have been obvious to modify *Lazzouni* to include the

features of *Henderson* with no suggestion of motivation in the applied references or elsewhere to do so, the rejection appears to rely on impermissible hindsight reasoning.

4. The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claim 4

Claim 4 depends directly on claim 1. Appellants submit that claim 4 is allowable for the reasons set forth above with regard to claim 1 at least based upon its dependency on claim 1. Appellants further submit that dependent claim 4 is separately patentable and offer the following additional arguments for the invention of claim 4.

The rejection of these claims asserts that *Henderson* teaches the incremental features recited therein. Appellants submit, however, that the rejection's reliance on *Henderson* as allegedly teaching these incremental features fails to make up for the deficiencies of the rejection applied to claim 1. Thus *Lazzouni*, taken alone or in combination with *Henderson*, assuming these references are combinable, which Appellants do not admit, fails to establish *prima facie* obviousness of dependent claim 4.

5. The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claim 18

Claim 18 depends directly from claim 16 or 17. Appellants submit that claim 18 is allowable for the reasons set forth herein with regard to claim 16 or 17 at least based upon its dependency upon claim 16 or 17. Appellants further submit that dependent claim 18 is separately patentable and offer the following additional argument for the invention of claim 18.

Appellants disagree that *Henderson* teaches receiving device identity information from the reading device as recited.

*Henderson* discloses if multiple editing inputs such as different pen colors are used, it is preferred to store each of the various editing inputs separately in order to retrieve individual edits. For example, where different pen colors are used to indicate edits made by different persons, each of the different edits may be stored separately in order to retrieve the individual edits (col. 7, lines 18-24).

*Henderson* further discloses in col. 12, lines 11-17, that for applications such as teleconferencing, operators at various remote locations can make edits that are identifiable with a given location or person. For example, editors at one location may use one color while editors at another location may use a different color. In this manner, the editing inputs from various persons and/or locations can be determined.

However, there is no teaching or suggestion in *Henderson* that is directed to receiving device identity information from the reading device, the identity information associating the editing information with a user of the reading device. *Henderson* merely teaches that participants of the teleconference may see different pen colors; however, this teaching is insufficient to teach or suggest the device identity information as claimed. *Lazzouni* fails to cure the deficiencies of the teachings of *Henderson* as *Lazzouni* fails to teach or suggest this claim element. As neither of the references, either alone or in combination, teach or suggest this claim element, Appellants maintain that the Examiner has failed to establish *prima facie* obviousness.

In addition to the above argument, claim 18 is alternatively dependent on claim 17. However, the Examiner has rejected claim 17 as being unpatentable based on the teachings of *Lazzouni* and *Dymetman*. As such, the Examiner has failed to consider the invention of claim with respect to its dependency on claim 17, as *Dymetman* is not cited in the rejection of claim 18. As such, the

Examiner's rejection of claim 18 with respect to its dependency on claim 17 is wholly improper as the Examiner relies on *Dymetman* to support his rejection of claim 17.

For all of the reasons set forth above, Appellants respectfully submit that claim 18 is patentable over the references as cited.

C. The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claim 13 Based on the Teachings of *Lazzouni* and *Skinner*.

Claim 13 depends indirectly from claim 1 or 2. Appellants submit that claim 13 is allowable for the reasons set forth above with regard to claim 1 or 2 at least based upon its dependency on claim 1 or 2. Appellants further submit that dependent claim 13 is separately patentable and offers the following additional arguments for the invention of claim 13.

The rejection of these claims asserts that *Skinner* teaches the incremental features recited therein. Appellants submit, however, that the rejection's reliance on *Skinner* as allegedly teaching these incremental features fails to make up for the deficiencies of the rejection applied to claims 1 or 2. Thus *Lazzouni*, taken alone or in combination with *Skinner*, assuming these references are combinable, which Appellants do not admit, fails to establish *prima facie* obviousness of dependent claim 13.

D. The Examiner Fails to Establish *Prima Facie* Obviousness in rejecting claims 2, 17, 19-21, 24-26, 29-31 and 34-35 based on the teachings of *Lazzouni* and *Dymetman*.

1. Argument Summary

The reasoning provided in support of the rejection of claims 2, 17, 19-21, 24-26, 29-31 and 34-35 under 35 U.S.C. § 103(a) as being unpatentable over *Lazzouni* in view of *Dymetman* fails to establish *prima facie* obviousness. Generally, the deficiencies of the rejection are that the rejection

attributes certain claim features to the references that a detailed reading of the references reveals are not taught therein.

2. The Examiner Fails to Establish *Prima facie* Obviousness in Support of the Rejection of claim 2

The invention of claim 2 is directed to a method for editing a document, the method comprising initially registering said document in a pattern administration unit; the pattern administration unit assigning a unique subset of position-coding pattern to each page of said registered document; transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device adapted to print the position-coding pattern on a surface; transferring document information to the printing device adapted to print the document information on the surface; receiving editing information from a reading device adapted to read position information from the position-coded surface; interpreting the editing information; and changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

In support of the Examiner's rejection of claim 1, the Examiner asserts in the final Official Action mailed January 4, 2006, on pages 18-19, as follows:

- Lazzouni* discloses a method of editing a document ...
- initially registering said document in a pattern administration unit (see Figures 4 and 5; see Column 6, Line 35 through Column 8, Line 21 – *Lazzouni* discloses this limitation in that the information recording system records different patterns of pixels for different documents. The patterns for the documents are unique in that each pattern is established by a coding algorithm that includes the following factors, number of different inks used ...The system stores these different patterns when they are created. Thus, the system includes a “pattern administration unit” that “initially registers a document” in that the system creates a pattern of pixels for a document and stores that pattern of pixels.);
  - the pattern administration unit assigning a unique subset of said position-coding pattern to the pages of said registered document unit (see Figures 4 and 5; see Column 6, Line 35 through Column 8, Line 21 – *Lazzouni* discloses this limitation in that the information recording system records the pattern of pixels to be used for the document. Each page of the document will have the same pattern of pixels.);

- transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device adapted to print the position-coding pattern on a surface (see Figure 4; see Column 8, lines 22-37 – *Lazzouni* discloses this limitation in that the information recording system comprises printing patterns of pixels on paper. Thus, the system “transfers the position-coding pattern,” which was assigned by the pattern administration unit,” to a “printing device” that is “adapted to print the position coding pattern on a surface.”);

The Examiner admits that *Lazzouni* fails to teach or suggest a pattern administration unit that assigns a unique subset of said position-coding pattern to each page of the document. The Examiner relies on the teachings of *Dymetman* to cure the deficiencies of the teachings of *Lazzouni* citing to Figs. 3-7; col. 3, line 25 through col. 4, line 10 of *Dymetman*. The Examiner concludes that one skilled in the art would have been motivated to combine the teachings of *Dymetman* with the teachings of *Lazzouni* for the purpose of specifically identifying a particular page and indicating a function to be performed regarding that particular page.

Appellants respectfully disagree that *Lazzouni* discloses initially registering said document in a pattern administration unit; the pattern administration unit assigning a unique subset of position-coding pattern to each page of said registered document; transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device adapted to print the position-coding pattern on a surface; and changing the document information based on an interpretation of the editing information, thereby resulting in an updated document, as required by claim 2.

- a. *Lazzouni* fails to teach or suggest “initially registering said document in a pattern administration unit,” as required by claim 2.

The Examiner asserts that *Lazzouni* discloses this limitation in that the information recording “system records different patterns of pixels for different documents. The patterns for the documents are unique in that each pattern is established by a coding algorithm that includes the following

factors, number of different inks used, etc. The system stores these different patterns when they are created. Thus, the system includes a “pattern administration unit” that “initially registers a document” in that the system creates a pattern of pixels for a document and stores that pattern of pixels.”

However, in the citations provided by the Examiner, there is no disclosure that is directed to the pattern being stored anywhere. *Lazzouni* merely discloses storing the position information obtained by the pen as the pen is being moved by a user. The Examiner’s assertion that the system creates a pattern of pixels for a document and stores that pattern of pixels is not disclosed anywhere in the reference. Further, the Examiner fails to identify any portion of the *Lazzouni* that teaches a pattern administration unit. The Examiner merely makes erroneous conclusory statements regarding the teachings of *Lazzouni* to support his assertion of obviousness.

Appellants respectfully submit that *Lazzouni* fails to teach or suggest a pattern administration unit, and further fails to teach or suggest initially registering said document in the pattern administration unit, as required by the claim.

- b. *Lazzouni* fails to teach or suggest “the pattern administration unit assigning a unique subset of position-coding pattern to each page of said registered document” as required by claim 2.

The Examiner asserts that “*Lazzouni* discloses this limitation in that the information recording system records the pattern of pixels to be used for the document.” However, again, the Examiner asserts erroneous conclusory statements regarding the teachings of *Lazzouni* to support his assertion of obviousness. There is no disclosure in *Lazzouni* that is directed to any pattern administration unit. Further, there simply is no teaching or suggestion in *Lazzouni* that is directed to

the pattern administration unit assigning a unique subset of position-coding pattern to the registered document.”

- c. Lazzouni fails to teach or suggest “transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device adapted to print the position-coding pattern on a surface” as required by claim 2.

The Examiner asserts that *Lazzouni* discloses “the information recording system comprises printing patterns of pixels on paper,” and therefore teaches the claim element. However, *Lazzouni* fails to teach or suggest such a printing of patterns of pixels on paper. Further, *Lazzouni* is silent on the pattern administration unit assigning the unique subset of the position-coding pattern. As such, there can be no teaching of transferring such an assigned subset to a printing device, as purported by the Examiner.

- d. Lazzouni fails to teach or suggest “changing the document information based on an interpretation of the editing information, thereby resulting in an updated document” as required by claim 2.

As noted above with regard to claim 1, *Lazzouni* fails to teach or suggest changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

Appellants respectfully submit that *Dymetman* fails to cure the deficiencies of the teachings of *Lazzouni*, as noted above. As neither of the references, either alone or in combination (assuming these references are combinable, which Appellants do not admit) teach or suggest all of the claim elements, Appellants respectfully submit that the Examiner has failed to establish *prima facie* obviousness and thus, claim 2 is patentable over the references as cited.

3. The Rejection Fails to Establish *Prima facie* Obviousness of Independent Claim 17

Independent claim 17 provides for a system for document editing. The system includes storage means for storing a document; registration means which is arranged to initially register the document in a pattern administration unit comprising a database of a position-coding pattern, the pattern administration unit being arranged to assign a unique subset of the position-coding pattern to each page of the registered document; means for transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device capable of printing the position-coding pattern on a surface; means for transferring information contained in the document to the printing device, the printing device being adapted to print the information on the surface; means for receiving editing information from a reading device adapted to read position information from a position-coded surface; means for interpreting the editing information; and means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

In support of the Examiner's rejection of this claim, the Examiner relies on his rejection of claims 1, 2 and 16 to support his assertion regarding most of the claim elements. The Examiner admits that *Lazzouni* fails to teach or suggest a pattern administration unit that is arranged to assign a unique subset of said position-coding pattern to each page of the registered document. The Examiner relies on the teachings of *Dymetman* to cure the deficiencies of the teachings of *Lazzouni*.

However, for the reasons set forth above with regard to claims 1, 2, and 16, the disclosure of *Lazzouni* is wholly insufficient to teach or suggest storage means for storing a document; registration means which is arranged to initially register the document in a pattern administration unit, the pattern administration unit being arranged to assign a unique subset of the position-coding pattern to each page of the registered document; means for transferring information indicative of the unique

subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device capable of printing the position-coding pattern on a surface; and means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

Further, claim 2 recites a method, while claim 17 recites “means for performing functionality. The Examiner has failed to provide any citations to *Lazzouni* that teach or suggest any means for performing the functionality as recited in the claim.

Still further, there are elements recited in claim 17 that are not recited in either claim 1, 2, or 16. For example, claim 17 recites the pattern administration unit comprising a database of a position-coding pattern. The Examiner has failed to consider and/or attribute any patentable weight to this claim element.

Appellants respectfully submit that *Dymetman* fails to cure the deficiencies of the teachings of *Lazzouni* as *Dymetman* fails to teach or suggest these claim elements.

For all of the reasons set forth above, Appellants respectfully submit that the Examiner has failed to establish *prima facie* obviousness by failing to provide references that teach or suggest all of the claim elements and, thus, claim 17 is patentable over the references as cited.

4. The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claims 19-21, 29-30 and 35

Claims 19-21, 29-30 and 35 depend directly from claim 17. Appellants submit that the rejection of claims 19-21, 29-30 and 35 fails to establish *prima facie* obviousness for at least the reasons set forth above with regard to claim 17. Appellants further submit that dependent 19-21, 29-30 and 35 are separately patentable and offer the following additional argument for the invention of claims 19-21, 29-30 and 35.

The rejection of claims 19-21, 29-30 and 35 asserts that *Dymetman* and/or *Lazzouni* teach the incremental features recited therein. Appellants submit, however, as noted above with regard to claim 17, that the Examiner has failed to provide references that teach or suggest all of the features recited therein. As the Examiner has failed to provide references that teach or suggest all of the elements set forth in claim 17, in combination with the elements set forth in claims 19-21, 29-30 and 35, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness. Thus, claims 19-21, 29-30 and 35 are patentable over *Henderson* in view of *Lazzouni* and *Dymetman*.

5. The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claims 24-26 and 34

Claims 24-26 and 34 depend directly or indirectly from claim 2. Appellants submit that the rejection of claims 24-26 and 34 fails to establish *prima facie* obviousness for at least the reasons set forth above with regard to claim 2. Appellants further submit that dependent claims 24-26 and 34 are separately patentable and offer the following additional argument for the invention of claims 24-26 and 34.

The rejection of claims 24-26 and 34 asserts that *Dymetman* teaches the incremental features recited therein. As the Examiner has failed to provide references that teach or suggest all of the elements set forth in claim 2, in combination with the elements set forth in claims 24-26 and 34, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness. Thus, claims 24-26 and 34 are patentable over *Henderson* in view of *Lazzouni* and *Dymetman*.

6. The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claim 31

Claim 31 depends directly from claim 22. Appellants submit that the rejection of claim 31 fails to establish *prima facie* obviousness for at least the reasons set forth above with regard to claim 22. Appellants further submit that dependent claim 31 is separately patentable and offer the following additional argument for the invention of claim 31.

The rejection of claim 31 asserts that *Lazzouni* teaches the incremental features recited therein. As the Examiner has failed to provide references that teach or suggest all of the elements set forth in claim 2, in combination with the elements set forth in claim 31, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness. Thus, claim 31 is patentable over *Lazzouni* in view of *Dymetman*.

E. The Rejection Fails to Establish *Prima facie* Obviousness of Dependent Claim 36 Based on the Teachings of *Lazzouni*, *Dymetman* and *Henderson*.

Claim 36 depends directly from claim 2. Appellants submit that the rejection of claim 36 fails to establish *prima facie* obviousness for at least the reasons set forth above with regard to claim 2. Appellants further submit that dependent claim 36 is separately patentable and offer the following additional argument for the invention of claim 36.

The rejection of claim 36 asserts that *Henderson* teaches the incremental features recited therein. As the Examiner has failed to provide references that teach or suggest all of the elements set forth in claim 2, in combination with the elements set forth in claim 36, it is respectfully submitted that the Examiner has failed to establish *prima facie* obviousness. Thus, claim 36 is patentable over *Lazzouni* in view of *Dymetman* and *Henderson*.

## VIII. CONCLUSION

The withdrawal of the outstanding rejections and the allowance of claims 1-13, 15-26 and 29-36 is earnestly solicited.

Respectfully submitted,

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## IX. CLAIMS APPENDIX

1. (Previously Presented) A method of editing a document, the method comprising:
  - transferring document information to a printing device adapted to print the document information on a surface having a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions;
  - receiving editing information from a reading device adapted to read position information from the position-coded surface;
  - interpreting the editing information; and
  - changing the document information depending on an interpretation of the editing information, thereby resulting in an updated document.
  
2. (Previously Presented) A method for editing a document, the method comprising:
  - initially registering said document in a pattern administration unit;
  - the pattern administration unit assigning a unique subset of position-coding pattern to each page of said registered document;
  - transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device adapted to print the position-coding pattern on a surface;
  - transferring document information to the printing device adapted to print the document information on the surface;

receiving editing information from a reading device adapted to read position information from the position-coded surface;

interpreting the editing information; and

changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

3. (Original) A method according to claim 1 or 2, further comprising receiving device identity information from the reading device, the identity information associating the editing information with a user of the reading device.

4. (Original) A method according to claim 1 or 2, wherein the editing information is associated with a plurality of users, and wherein each user generates at least one editing command with a reading device.

5. (Original) A method according to claim 4, wherein the editing commands generated by the plurality of users are in an ordered sequence identified by at least a timestamp associated with each editing command.

6. (Original) A method according to claim 1 or 2, wherein the editing information includes position information related to a position of the reading device on the surface, and wherein the interpretation of the editing information includes interpretation of the position information.

7. (Original) A method according to claim 6, wherein the position information is in the form of sequences of coordinates forming manually generated curves corresponding in form to drawn curves on the printed document.

8. (Original) A method according to claim 1 or 2, further comprising displaying the document information of the updated document to a user.

9. (Original) A method according to claim 1 or 2, wherein the step of changing the document information includes adding editing information in the form of handwritten annotations to the document.

10. (Original) A method according to claim 9, further comprising associating, based on position information included in the editing information, each of the handwritten annotations with a respective portion of the document information.

11. (Original) A method according to claim 1 or 2, wherein changing the document information includes reformatting one or more parts of the document information.

12. (Original) A method according to claim 11, wherein said reformatting is chosen from the group of:

adding text or graphics to said document information; removing text or graphics from said document information; or repositioning text or graphics included in said document information.

13. (Original) A method according to claim 12, wherein adding text includes converting part of the editing information to machine-readable text.

14. (Cancelled).

15. (Previously Presented) A computer program tangibly embodied on a computer readable-medium which can be read by a computer and which comprises instructions for causing a computer to execute the method according to claim 1 or 2.

16. (Previously Presented) A system for document editing, the system comprising:  
storage means for storing a document;  
means for transferring information from the document to a printing device capable of printing the information on a surface provided with a position-coding pattern, the position-coding pattern comprising symbols associated with grid points of a grid and coding a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions;  
means for receiving editing information from a reading device adapted to read position information from a position-coded surface;  
means for interpreting the editing information; and  
means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

17. (Previously Presented) A system for document editing, the system comprising:

storage means for storing a document;

registration means which is arranged to initially register the document in a pattern administration unit comprising a database of a position-coding pattern, the pattern administration unit being arranged to assign a unique subset of the position-coding pattern to each page of the registered document;

means for transferring information indicative of the unique subset of the position-coding pattern, assigned by the pattern administration unit, to a printing device capable of printing the position-coding pattern on a surface;

means for transferring information contained in the document to the printing device, the printing device being adapted to print the information on the surface;

means for receiving editing information from a reading device adapted to read position information from a position-coded surface;

means for interpreting the editing information; and

means for changing the document information based on an interpretation of the editing information, thereby resulting in an updated document.

18. (Original) A system according to claim 16 or 17, further comprising means for receiving device identity information from the reading device, so as to associate the editing information with a user of the reading device.

19. (Previously Presented) A system according to claim 17, wherein said storage means and said registration means are included in a computer device.

20. (Original) A system according to claim 19, wherein said means for receiving editing information is included in said pattern administration unit.

21. (Original) A system according to claim 19, wherein said means for receiving editing information is included in a local processing unit.

22. (Previously Presented) A method of editing a document containing information, the method comprising:

storing the document information in memory;

printing the document information on a surface, wherein the surface contains a readable code contained thereon in addition to the printed document information, wherein the readable code comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid;

enabling an electronic pen to physically mark edit instructions on the surface and to electronically capture the edit instructions by reading the readable code proximate the marked edit instructions;

receiving through a processor associated with the memory the edit instructions captured by the electronic pen; and

altering the document information in memory to conform to the edit instructions.

23. (Original) The method of claim 22, wherein the readable code is a position coding pattern.

24. (Previously Presented) The method of claim 2, wherein the position-coding pattern comprises symbols associated with grid points of a grid and codes a plurality of positions on the surface, each position being coded by a plurality of the symbols, wherein each symbol contributes to the coding of more than one of the plurality of positions.

25. (Previously Presented) The method of claim 2, wherein the pattern administration unit, in the registering, receives document data indicative of the document and of a number of document pages.

26. (Previously Presented) The method of claim 25, wherein the document data includes the document.

27. (Canceled).

28. (Canceled).

29. (Previously Presented) The system of claim 17, wherein the registration means is arranged to transfer document data indicative of the document and of a number of document pages to the pattern administration unit.

30. (Previously Presented) The system of claim 29, wherein the document data includes the document.

31. (Previously Presented) The method of claim 22, wherein the readable code comprises symbols associated with grid points of a grid and codes a plurality of positions on the surface, wherein each position is coded by a plurality of the symbols, and wherein each symbol contributes to the coding of more than one of the plurality of positions.

32. (Previously Presented) The method of claim 1, wherein each symbol codes a value which is determined by a displacement of a marking in relation to a grid point.

33. (Previously Presented) The system of claim 16, wherein each symbol codes a value which is determined by a displacement of a marking in relation to a grid point.

34. (Previously Presented) The method of claim 2, wherein the position-coding pattern comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid.

35. (Previously Presented) The system of claim 17, wherein the position-coding pattern comprises a grid and a plurality of symbols, the value of each symbol being determined by a displacement of a marking in relation to the grid.

36. (Previously Presented) The method of claim 2, wherein the document is a word-processing document.

X. EVIDENCE APPENDIX

No evidence has been submitted under 37 C.F.R 1.130, 1.131 or 1.132. No other evidence has been entered by the Examiner and relied upon in this appeal.

**I. RELATED PROCEEDINGS APPENDIX**

There are no related proceedings.